

*West Virginia Department of Environmental Protection
Division of Air Quality*

*Earl Ray Tomblin
Governor*

*Randy C. Huffman
Cabinet Secretary*

Permit to Operate



Pursuant to
Title V
of the Clean Air Act

Issued to:
Dominion Transmission, Inc.
Wilsonburg Compressor Station
R30-03300011-2011

John A. Benedict
Director

Issued: Draft/Proposed • Effective: [Equals issue date plus two weeks]
Expiration: [5 years after issuance date] • Renewal Application Due: [6 months prior to expiration]

Permit Number: **R30-03300011-2011**
Permittee: **Dominion Transmission, Inc.**
Facility Name: **Wilsonburg Compressor Station**
Permittee Mailing Address: **445 West Main Street, Clarksburg, WV 26301**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Wilsonburg, Harrison County, West Virginia
Facility Mailing Address:	Same as above
Telephone Number:	(304) 627-3225
Type of Business Entity:	Corporation
Facility Description:	Natural gas transmission facility
SIC Codes:	Primary 4922; Secondary NA; Tertiary NA
UTM Coordinates:	549.9 km Easting • 4348.7 km Northing • Zone 17

Permit Writer: Frederick Tipane

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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1.0 Emission Units and Active R13, R14, and R19 Permits

1.1 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
001-01*	EN01	Reciprocating Engine/Integral Compressor; Clark HMA-8	1974	350 HP	N/A
001-02*	EN02	Reciprocating Engine/Integral Compressor; Ajax DPC-360	1987	360 HP	N/A
001-03*	EN03	Reciprocating Engine/Integral Compressor; Ajax DPC-800	1983	800 HP	N/A
005-01	EG01	Emergency Generator	2010	192.5 HP	N/A
005-02	EG02	Emergency Generator	2010	192.5 HP	N/A
DEHY02	F2	Cameron Dehydration Unit	2011	13.5 mmscfd	F2
RBR02	RBR02	Cameron Reboiler	2011	1.104 MMBtu/hr	N/A
F2	F2	Cameron Flare	2011	10 MMBtu/hr	N/A
TK01	TK01	Horizontal Above ground Ethylene Glycol Storage Tank	1991	2000 gallons	N/A
TK02	TK02	Horizontal Above ground Tri-ethylene Glycol Storage Tank	1983	1000 gallons	N/A
TK03	TK03	Horizontal Above ground Produced Fluids Tank	2002	5000 gallons	N/A
TK04	TK04	Horizontal Above ground Engine Oil Tank	1997	3000 gallons	N/A
TK05	TK05	Vertical Above ground Wastewater Tank	1971	500 gallons	N/A
TK06	TK06	Vertical Above ground Used Ethylene Glycol Tank	1972	230 gallons	N/A
TK07	TK07	Horizontal Above ground Used Oil Tank	1997	3,000 gallons	N/A

* This equipment burns or combusts pipeline quality natural gas only.

1.2 Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-2856A	July 07, 2011

2.0 General Conditions

2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.
- 2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NSPS	New Source Performance
CBI	Confidential Business Information		Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM₁₀	Particulate Matter less than 10µm in diameter
C.F.R. or CFR	Code of Federal Regulations		
CO	Carbon Monoxide	pph	Pounds per Hour
C.S.R. or CSR	Codes of State Rules	ppm	Parts per Million
DAQ	Division of Air Quality	PSD	Prevention of Significant Deterioration
DEP	Department of Environmental Protection	psi	Pounds per Square Inch
FOIA	Freedom of Information Act	SIC	Standard Industrial Classification
HAP	Hazardous Air Pollutant		
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr or lb/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
m	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
		USEPA	United States Environmental Protection Agency
mm	Million		
mmBtu/hr	Million British Thermal Units per Hour	UTM	Universal Transverse Mercator
mmft³/hr or mmcf/hr	Million Cubic Feet Burned per Hour	VEE	Visual Emissions Evaluation
NA or N/A	Not Applicable		
NAAQS	National Ambient Air Quality Standards	VOC	Volatile Organic Compounds
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		
NO_x	Nitrogen Oxides		

2.3. Permit Expiration and Renewal

- 2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]
- 2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]
- 2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]
- 2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

- 2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

- 2.5.1. This permit shall be reopened and revised under any of the following circumstances:
 - a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.
 - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.
 - c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

- d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

- 2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.

[45CSR§30-6.4.]

2.7. Minor Permit Modifications

- 2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.

[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

- 2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.

[45CSR§30-6.5.b.]

2.9. Emissions Trading

- 2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.

[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

- 2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

- a. The change must meet all applicable requirements and may not violate any existing permit term or condition.
- b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
- c. The change shall not qualify for the permit shield.

- d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.
- f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

- 2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

[45CSR§30-5.8]

- 2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

[45CSR§30-5.8.a.]

- 2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

- a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or
- b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

- 2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

- 2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.
- a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
 - b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
 - c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

- 2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

- 2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
 - a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
 - b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

- 2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.
- [45CSR§30-5.1.f.2.]

2.17. Emergency

- 2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- [45CSR§30-5.7.a.]
- 2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.
- [45CSR§30-5.7.b.]
- 2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

- b. The permitted facility was at the time being properly operated;
- c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

- 2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

[45CSR§30-5.7.d.]

- 2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

[45CSR§30-5.2.a.]

- 2.18.2. Those provisions specifically designated in the permit as “State-enforceable only” shall become “Federally-enforceable” requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

- 2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

- 2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.

[45CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

- a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.
- c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.

[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.

[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.
- b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.
- c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

- 2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.

[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40 C.F.R. §61.145(b) and 45CSR34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]
- 3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]
- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

- 3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.

[40 C.F.R. 68]

- 3.1.9. No person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates or at any public or residential location, which causes or contributes to statutory air pollution.

[45CSR§17-3.1; State Enforceable Only]

3.2. Monitoring Requirements

- 3.2.1. N/A

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
 - a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
 - b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
 - c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any

testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

- d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
 1. The permit or rule evaluated, with the citation number and language.
 2. The result of the test for each permit or rule condition.
 3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13 – Permit R13-2856]

3.4. Recordkeeping Requirements

- 3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:
 - a. The date, place as defined in this permit and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A., 45CSR13 - Permit No. R13-2856 §4.4.1.]

- 3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.

[45CSR§30-5.1.c.2.B.]

- 3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§30-5.1.c. State-Enforceable only.]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§30-4.4. and 5.1.c.3.D.]
- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]
- 3.5.3. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Enforcement and Permits Review
(3AP12)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

- 3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]
- 3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]
- 3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the

reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.

[45CSR§30-5.1.c.3.A.]

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

[45CSR§30-4.3.h.1.B.]

3.6. Compliance Plan

3.6.1. N/A

3.7. Permit Shield

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.
- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.
- a. N/A

3.8. Emergency Operating Scenario

For emergency situations which interrupt the critical supply of natural gas to the public, and which pose a life threatening circumstance to the customer, the permittee is allowed to temporarily replace failed engine(s) as long as all of the following conditions are met:

- a. The replacement engine(s) is only allowed to operate until repair of the failed engine(s) is complete, but under no circumstance may the replacement engine(s) operate in excess of sixty (60) days;
- b. Both the replacement engine(s) and the repaired failed engine(s) shall not operate at the same time with the exception of any necessary testing of the repaired engine(s) and this testing may not exceed five (5) hours;
- c. Potential hourly emissions from the replacement engine(s) are less than or equal to the potential hourly emissions from the engine(s) being replaced;
- d. Credible performance emission test data verifying the emission rates associated with the operation of the substitute engine shall be submitted to the Director within five (5) days;
- e. The permittee must provide written notification to the Director within five (5) days of the replacement. This notification must contain:
- i. Information to support the claim of life threatening circumstances to justify applicability of this emergency provision;
- ii. Identification of the engine(s) being temporarily replaced;
- iii. The design parameters of the replacement engine(s) including, but not limited to, the design horsepower and emission factors;
- iv. Projected duration of the replacement engine(s); and
- v. The appropriate certification by a responsible official.

[45CSR§30-12.7.]

4.0 Dehydration Reboiler [emission point ID(s): *RBR02*]

4.1 Limitations and Standards

- 4.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1.]

4.2 Monitoring Requirements

- 4.2.1. N/A

4.3 Testing Requirements

- 4.3.1. N/A

4.4 Recordkeeping Requirements

- 4.4.1. N/A

4.5 Reporting Requirements

- 4.5.1. N/A

4.6 Compliance Plan

- 4.6.1. N/A

5.0 Dehydration Unit and Flare [emission point ID(s): F2]

5.1. Limitations and Standards

- 5.1.1. The maximum wet natural gas throughput to the dehydration unit shall not exceed 13.5 mmscf/day. Compliance with this limit shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.

[45CSR13 - Permit No. R13-2856 §5.1.1.]

- 5.1.2. The applicant shall not cause, suffer, allow or permit aggregate emissions of hazardous air pollutants (HAPs) to exceed the potential to emit (pounds per hour and tons per year) recorded below:

Pollutant	Hourly Emissions (lb/hr)	Annual Emissions (tons/yr)
Nitrogen Oxides	0.20	0.88
Carbon Monoxide	0.40	1.75
Volatile Organic Compounds	4.27	18.69
Benzene	0.06	0.26
Ethylbenzene	0.04	0.16
Hexane	0.06	0.28
Toluene	0.15	0.66
Xylene	0.32	1.42
Total HAPs	0.63	2.78

[45CSR13 - Permit No. R13-2856 §5.1.2.]

- 5.1.3. For purposes of determining potential HAP emissions at transmission and storage facilities to comply with the requirements in Section 6.1.1., the methods specified in 40 CFR 63, Subpart HHH shall be used. For purposes of determining potential HAP emissions at production-related facilities, the methods specified in 40 CFR 63, Subpart HH (i.e. excluding compressor engines from HAP PTE) shall be used.

[45CSR13 - Permit No. R13-2856 §5.1.3.]

- 5.1.4. Flares subject to this section shall be designed and operated in accordance with the following:

- Flares shall be steam-assisted, air-assisted, or non-assisted.
- Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. *This streamlined limit of no visible emissions will ensure compliance with 45CSR§6-4.3.* During the exception period when visible emissions are allowed, the visible emissions shall not exceed 20% opacity except for periods of start-up as outlined in 45CSR§6-4.4. (i.e., less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up).

- c. Flares shall be operated, with a flame present at all times whenever emissions may be vented to them, except during SSM (Startup, Shutdown, Malfunctions) events.
- d. A flare shall be used only where the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or where the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K = Constant =

$$1.740 \times 10^{-7} \left(\frac{1}{ppmv} \right) \left(\frac{g - mole}{scm} \right) \left(\frac{MJ}{kcal} \right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

C_i = Concentration of sample component i in ppmv on a wet basis, which may be measured for organics by Test Method 18, but is not required to be measured using Method 18 (unless designated by the Director).

H_i = Net heat of combustion of sample component i, kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382–76 or 88 or D4809–95 if published values are not available or cannot be calculated.

n = Number of sample components.

- e. Steam-assisted and non-assisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided by 5.1.4.f and 5.1.4.g of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), by the unobstructed (free) cross-sectional area of the flare tip, which may be determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, but is not required to be determined using these Methods (unless designated by the Director).
- f. Steam-assisted and non-assisted flares designed for and operated with an exit velocity, as determined by the method specified in 5.1.4.e. of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).
- g. Steam-assisted and non-assisted flares designed for and operated with an exit velocity, as determined by the method specified in 5.1.4.e. of this section, less than the velocity V_{max} , as determined by the calculation specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{max} , for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log}_{10}(V_{\max}) = (H_t + 28.8)/31.7$$

Where:

V_{\max} = Maximum permitted velocity, m/sec.

28.8 = Constant.

31.7 = Constant.

H_t = The net heating value as determined in 5.1.4.d of this section

- h. Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{\max} . The maximum permitted velocity, V_{\max} , for air-assisted flares shall be determined by the following equation:

$$V_{\max} = 8.71 + 0.708(H_t)$$

Where:

V_{\max} = Maximum permitted velocity, m/sec.

8.71 = Constant.

0.708 = Constant.

H_t = The net heating value as determined in 5.1.4.d of this section.

[45CSR13 - Permit No. R13-2856 §5.1.4., 45CSR§§6-4.3. and 4.4.]

- 5.1.5. The applicant is not required to conduct a flare compliance assessment for concentration of sample (i.e. Method 18) and tip velocity (i.e. Method 2) until such time as the Director requests a flare compliance assessment to be conducted in accordance with section 5.3.2, but the applicant is required to conduct a flare design evaluation in accordance with section 5.4.2. Alternatively, the applicant may elect to demonstrate compliance with the flare design criteria requirements of section 5.1.4 by complying with the compliance assessment testing requirements of section 5.3.2.

[45CSR13 - Permit No. R13-2856 §5.1.5.]

- 5.1.6. No person shall cause, suffer, allow or permit particulate matter to be discharged from any incinerator into the open air in excess of the quantity determined by use of the following formula:

$$\text{Emissions (lb/hr)} = F \times \text{Incinerator Capacity (tons/hr)}$$

Where, the factor, F, is as indicated in Table I below:

Table I: Factor, F, for Determining Maximum Allowable Particulate Emissions

Incinerator Capacity:	Factor F
A. Less than 15,000 lbs/hr	5.43
B. 15,000 lbs/hr or greater	2.72

Calculation for PM Emissions:

$$(5.43) \times 86.92 \text{ lb/hr} \times (\text{ton}/2000 \text{ lb}) = 0.236 \text{ lb/hr}$$

[45CSR§6-4.1.][F2]

- 5.1.7. No person shall cause, suffer, allow or permit the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.

[45CSR§6-4.5.][F2]

- 5.1.8. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
[45CSR§6-4.6.][F2]
- 5.1.9. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§10-4.1.a through 45CSR§10-4.1.e.
[45CSR§10-4.1.]
- 5.1.10. No person shall cause, suffer, allow or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and USEPA. In certain cases very small units may be considered exempt from this requirement if, in the opinion of the Director, compliance would be economically unreasonable and if the contribution of the unit to the surrounding air quality could be considered negligible.
[45CSR§10-5.1.]
- 5.1.11. The permittee has defined the facility as a minor source of HAPs for existing source MACT applicability purposes. As a result, the subject facility shall conduct monitoring, testing, and reporting as specified below in order to provide adequate justification for maintaining minor source status. This requirement shall in no way restrict the permittee from conducting more frequent testing to quantify emissions increases.
[40CFR§63.10(b)(3); 45CSR34]
- 5.1.12. The owner or operator of an affected area source that is not located in an Urban-1 county, as defined in §63.761, the construction or reconstruction of which commences on or after July 8, 2005, shall achieve compliance with the provisions of this subpart (40 CFR 63 Subpart HH) immediately upon initial startup or January 3, 2007, whichever date is later.
[40CFR§63.760(f)(6)]
- 5.1.13. **40CFR §63.764** *General standards* (note the following section numbers match those of §63.764)
- (a) Table 2 of the Part 63 Subpart HH specifies the provisions of subpart A (General Provisions) of Part 63 that apply and those that do not apply to owners and operators of affected sources subject to this subpart.
 - (b) All reports required under this subpart shall be sent to the Administrator at the appropriate address listed in §63.13. Reports may be submitted on electronic media.
 - (d) Except as specified in paragraph (e)(1) of this requirement, the owner or operator of an affected source located at an existing or new area source of HAP emissions shall comply with the applicable standards specified in paragraph (d) of this section.
- (2) Each owner or operator of an area source not located in a UA plus offset and UC boundary (as defined in §63.761) shall comply with paragraphs (d)(2)(i) through (iii) of this requirement.
- (i) Determine the optimum glycol circulation rate using the following equation:

$$L_{OPT} = 1.15 \times 3.0 \frac{\text{gal TEG}}{\text{lb H}_2\text{O}} \times \left(\frac{F \times (I - O)}{24 \text{ hr/day}} \right)$$

Where:

L_{OPT} = Optimal circulation rate, gal/hr.

F = Gas flowrate (MMSCF/D).

I = Inlet water content (lb/MMSCF).

O = Outlet water content (lb/MMSCF).

3.0 = The industry accepted rule of thumb for a TEG-to water ratio (gal TEG/lb H₂O).

1.15 = Adjustment factor included for a margin of safety.

- (ii) Operate the TEG dehydration unit such that the actual glycol circulation rate does not exceed the optimum glycol circulation rate determined in accordance with paragraph (d)(2)(i) of this section. If the TEG dehydration unit is unable to meet the sales gas specification for moisture content using the glycol circulation rate determined in accordance with paragraph (d)(2)(i), the owner or operator must calculate an alternate circulation rate using GRI-GLYCalc™, Version 3.0 or higher. The owner or operator must document why the TEG dehydration unit must be operated using the alternate circulation rate and submit this documentation with the initial notification in accordance with §63.775(c)(7).
 - (iii) Maintain a record of the determination specified in paragraph (d)(2)(ii) in accordance with the requirements in §63.774(f) and submit the Initial Notification in accordance with the requirements in §63.775(c)(7). If operating conditions change and a modification to the optimum glycol circulation rate is required, the owner or operator shall prepare a new determination in accordance with paragraph (d)(2)(i) or (ii) of this section and submit the information specified under §63.775(c)(7)(ii) through (v).
- (e) *Exemptions.* (1) The owner or operator is exempt from the requirements of paragraph (d) of this section if the criteria listed in paragraph (e)(1)(ii) of this section are met, except that the records of the determination of these criteria must be maintained as required in §63.774(d)(1).
- (ii) The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year (1 ton/yr), as determined by the procedures specified in §63.772(b)(2) of this subpart.

[40CFR§63.764(a), (b), (d), (e)]

- 5.1.14. If the annual emissions of benzene from the dehydration unit ever equals or exceeds 0.90 megagram per year (1 tpy) as calculated per §63.772(b)(2) (requirement 5.3.4.), the permittee shall comply with section d(2)(i) through (iii) of §63.764 (requirement 5.1.13)

[45CSR§30-5.1.c.]

5.2. Monitoring Requirements

- 5.2.1. In order to demonstrate compliance with the requirements of 5.1.4.c, the applicant shall monitor the presence or absence of a flare pilot flame using a thermocouple or any other equivalent device, except during SSM events.

[45CSR13 - Permit No. R13-2856 §5.2.1., 40 CFR §64.3(a); 45CSR§30-5.1.c.]

- 5.2.2. The applicant shall monitor the throughput of wet natural gas fed to the dehydration system on a monthly basis for each glycol dehydration unit listed in 5.1.1.
[45CSR13 - Permit No. R13-2856 §5.2.2.]
- 5.2.3. Visual emission checks of each emission point specified shall be conducted monthly. If during these checks or at any other time visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with Method 9 of 40 C.F.R. 60, Appendix A. Records shall be maintained on site or at a reasonably available location stating the date and time of each visible emission check and whether visible emissions were observed. Visible emission checks shall not be required during start-ups, shut-downs and malfunctions.
[45CSR§30-5.1.c.][F2]
- 5.2.4. At a minimum of once per year, sample and analyze the inlet gas stream to the station utilizing gas chromatography for the presence of Sulfur. Proof of compliance with the 2000 ppm_v limit will be considered demonstrated if the gas chromatograph shows a total sulfur content of 2.3672 grains/100ft³ or less. Records shall be maintained on site or at a reasonable available location for a period of no less than five (5) years stating the date and time of analysis and the sulfur content of the gas sampled.
[45CSR§30-5.1.c.]
- 5.2.5. At a minimum of once per year, sample and analyze the inlet gas stream to the station utilizing gas chromatography for the presence of H₂S. Proof of compliance with the 50 grains/100ft³ limit will be considered demonstrated if the gas chromatograph shows a total H₂S content of 0.216 grains/100ft³ or less. Records shall be maintained on site or at a reasonably available location stating the date of analysis and the hydrogen sulfide content of the gas sampled.
[45CSR§30-5.1.c.]
- 5.2.6. In order to demonstrate compliance with the minor source status claimed within 5.1.2., 5.1.3. 5.1.11 as well as the 1 ton per year benzene exemption provided under 5.1.13(e)(1)(ii) using GRI-GLYCalc V3 or higher, the dehydration system must be accurately defined by monitoring and recording actual operating parameters associated with the dehydration system. These parameters shall be measured periodically, with the exception of wet gas composition, in order to define annual average values or, if monitoring is not practical, some parameters may be assigned default values as listed below. Periodically, shall be interpreted as sufficient enough to reflect annual variation and, therefore, this term is operating parameter and site dependent.

The WV Division of Air Quality requires the following actual operating parameters be measured or assumed to equal the default values listed below in order to satisfy this monitoring requirement when using the Gas Analysis and Process Data, GLYCalc emission modeling method:

- Natural Gas Flowrate:
 - number of days operated per year,
 - annual daily average (MMscf/day), and
 - maximum design capacity (MMscf/day)
- Absorber temperature and pressure
- Lean glycol circulation rate
- Glycol pump type
- Flash tank temperature and pressure, if applicable
- Stripping Gas flow rate, if applicable

- Wet gas composition (upstream of the absorber – dehydration column) Sampled in accordance with GPA method 2166 and analyzed consistent with GPA extended method 2286 as well as the procedures presented in the GRI-GLYCalc Technical Reference User Manual and Handbook V4.

The following operating parameter(s) may be assigned default values when using GRI-GLYCalc:

- Dry Gas water content at a point directly after exiting the dehydration column and before any additional separation points or assume pipeline quality at 7 lb H₂O / MMscf.
- Lean glycol water content if not directly measured may use the default value of 1.5 % water as established by GRI.
- Lean glycol circulation rate may be estimated using the recirculation ratio of 3 gal TEG / lb H₂O removed.

[45CSR§30-5.1.c.]

- 5.2.7. **Commencement of operation.** The permittee shall conduct the monitoring required under 40 CFR Part 64 upon issuance of this permit that includes such monitoring, or by the initial start-up date of the flare F2 that requires such monitoring, whichever is later.

[40 CFR §§ 64.7(a) and 64.6(d); 45CSR§30-5.1.c.]

- 5.2.8. **Proper Maintenance** – At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[40 CFR § 64.7(b); 45CSR§30-5.1.c.]

- 5.2.9. **Continued Operation** – Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR § 64.7(c); 45CSR§30-5.1.c.]

- 5.2.10. **Documentation of Need for Improved Monitoring** – After approval of monitoring under 40 CFR Part 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[40 CFR § 64.7(e); 45CSR§30-5.1.c.]

- 5.2.11. **Quality Improvement Plan (QIP)** – Based on the results of a determination made under 40 CFR §64.7(d)(2) (permit condition 5.4.11.b), the Administrator or the Director may require the permittee to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 CFR §§ 64.8(b) through (e). Refer to permit condition 5.5.6.b.3. for the reporting required when a QIP is implemented.
[40 CFR § 64.8; 45CSR§30-5.1.c.]
- 5.2.12. **Excursions** – The dehydration unit is designed to “shutdown” if the absence of a flame is detected. Therefore an excursion will occur if the dehydration unit is not shutdown when the absence of a flame is detected.
[40 CFR § 64.6(c)(2); 45CSR§30-5.1.c.]

5.3. Testing Requirements

- 5.3.1. In order to demonstrate compliance with the flare opacity requirements of 5.1.4.b. the applicant shall conduct a Method 22 opacity test for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40CFR60 Appendix A Method 22. The applicant shall conduct this test within one (1) year of permit R13-2856A issuance (i.e., July 7, 2011) or initial startup whichever is later. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR Part 60, appendix A, Method 22 or from the lecture portion of 40 CFR part 60, appendix A, Method 9 certification course.
[45CSR13 - Permit No. R13-2856 §5.3.1.]
- 5.3.2. The Director may require the applicant to conduct a flare compliance assessment to demonstrate compliance with section 5.1.4. This compliance assessment testing shall be conducted in accordance with Test Method 18 for organics and Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, or other equivalent testing approved in writing by the Director. Also, Test Method 18 may require the applicant to conduct Test Method 4 in conjunction with Test Method 18.
[45CSR13 - Permit No. R13-2856 §5.3.2.]
- 5.3.3. In order to demonstrate compliance with 5.1.3, upon request of the Director and within the 3th year of this permit term, the applicant shall demonstrate compliance with the HAP emissions thresholds using GLYCalc Version 3.0 or higher. The applicant shall sample in accordance with GPA Method 2166 and analyze the samples utilizing the extended GPA Method 2286 as specified in the GRI-GLYCalc V4 Technical Reference User Manual and Handbook. The permittee may utilize other equivalent methods provided they are approved in advance by DAQ as part of a testing protocol.
[45CSR13 - Permit No. R13-2856 §5.3.3., 45CSR§30-5.1.c]
- 5.3.4. The following testing and compliance provisions of Part 63 Subpart HH *National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities* are applicable to the facility:
- §63.772 *Test methods, compliance procedures, and compliance demonstrations.*
- (b) *Determination of glycol dehydration unit flowrate or benzene emissions.* The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate

or benzene emissions to meet the criteria for an exemption from control requirements under §63.764(e)(1) (requirement 5.1.13.).

(2) The determination of actual average benzene emissions from a glycol dehydration unit shall be made using the procedures of paragraph (b)(2)(i) of this requirement. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place.

(i) The owner or operator shall determine actual average benzene emissions using the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit.

Compliance with this monitoring and testing requirement shall be streamlined by demonstrating compliance with the monitoring specified within 5.2.6. and the testing provision of 5.3.3.

[40CFR§63.772 (b)(2)(i)]

5.4. Recordkeeping Requirements

5.4.1. For the purpose of demonstrating compliance with section 5.1.4.c and 5.2.1, the applicant shall maintain records of the times and duration of all periods which the pilot flame was absent.

[45CSR13 - Permit No. R13-2856 §5.4.1.]

5.4.2. For the purpose of demonstrating compliance with section 5.1.4 and 5.3.2, the applicant shall maintain a record of the flare design evaluation. The flare design evaluation shall include, net heat value calculations, exit (tip) velocity calculations, and all supporting concentration calculations and other related information requested by the Director.

[45CSR13 - Permit No. R13-2856 §5.4.2.]

5.4.3. For the purpose of demonstrating compliance with the requirements set forth in sections 5.1.4 and 5.3.3., the applicant shall maintain records of testing conducted in accordance with 5.3.3.

[45CSR13 - Permit No. R13-2856 §5.4.3.]

5.4.4. The applicant shall document and maintain the corresponding records specified by the on-going monitoring requirements of 5.2 and testing requirements of 5.3.

[45CSR13 - Permit No. R13-2856 §5.4.4.]

5.4.5. For the purpose of demonstrating compliance with section 5.1.4.b, the applicant shall maintain records of the visible emission opacity tests conducted per Section 5.3.1. and 5.2.3. The permittee shall maintain records of all monitoring data documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, and the results of the check(s). The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note “out of service” (O/S) or equivalent.

[45CSR13 - Permit No. R13-2856 §5.4.5., 45CSR§30-5.1.c.]

- 5.4.6. For the purpose of demonstrating compliance with section 5.1.3, the applicant shall maintain a record of all potential to emit (PTE) HAP calculations for the entire affected facility. These records shall include the natural gas compressor engines and ancillary equipment.
[45CSR13 - Permit No. R13-2856 §5.4.6.]
- 5.4.7. The applicant shall maintain a record of the wet natural gas throughput through the dehydration system to demonstrate compliance with the natural gas throughput limit set forth in 5.1.1.
[45CSR13 - Permit No. R13-2856 §5.4.7.]
- 5.4.8. All records required under Sections 5.4.1 - 5.4.7., inclusive, shall be maintained on site or in a readily accessible off-site location maintained by the applicant for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
[45CSR13 - Permit No. R13-2856 §5.4.8.]
- 5.4.9. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit section recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
[45CSR13 Permit R13-2856 §3.4.1.]
- 5.4.10. For the purpose of documenting compliance with the emission limitations, HAP major source thresholds, as well as the 1 ton per year benzene exemption, the permittee shall maintain records of all monitoring data, wet gas sampling, and annual GLYCalc emission estimates.
[45CSR§30-5.1.c.]
- 5.4.11. **Response to Excursions or Exceedances**
- a. Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
 - b. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring

results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[40 CFR § 64.7(d); 45CSR§30-5.1.c.]

5.4.12. General recordkeeping requirements for 40 CFR Part 64 (CAM)

The permittee shall comply with the recordkeeping requirements specified in permit conditions 3.4.1. and 3.4.2. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR §64.8 (5.2.11.) and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

[40 CFR § 64.9(b); 45CSR§30-5.1.c.]

5.5. Reporting Requirements

- 5.5.1. If applicant is required by the Director to demonstrate compliance with section 5.3.3, then the applicant shall submit a testing protocol at least thirty (30) days prior to testing and shall submit a notification of the testing date at least fifteen (15) days prior to testing. The applicant shall submit the testing results within sixty (60) days of testing and provide all supporting calculations and testing data. If alternative methods are proposed, a test protocol shall be submitted for approval no later than 60 days before the scheduled test date

[45CSR13 - Permit No. R13-2856 §5.5.1., 45CSR§30-5.1.c.]

- 5.5.2. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 or 22 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

[45CSR13 - Permit No. R13-2856 §5.5.2.]

- 5.5.3. Any deviation(s) from the flare design and operation criteria in Section 5.1.4 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of discovery of such deviation.

[45CSR13 - Permit No. R13-2856 §5.5.3.]

- 5.5.4. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

[45CSR§30-5.1.c.]

- 5.5.5. The permittee shall submit by March 31st of the following year, an emission summary for the dehydration unit (DEHY02), which incorporates the wet gas testing results required by 5.3.3. The permittee shall also supply a copy of the most recent report within the facility's subsequent Title V renewal application. These reports shall include an actual annual average emission estimate for the calendar year of the sample,

modeled using GLYCalc V3 or higher software, which incorporates site specific parameters measured in accordance with 5.2.6. The permittee shall also supply all supporting documentation where site specific operating parameters are tabulated to define the annual average values. The report shall incorporate a copy of the lab analysis obtained from the wet gas testing as well as a description of how and where the sample was taken. The report shall include a reference to all sampling and analytical methods utilized. Additionally, the permittee shall identify where the compressor station is located with respect to a custody transfer point, which is referenced within 40 CFR 63, subpart HH as the point where the gas enters into a natural gas transmission and/or storage pipeline. This report shall be signed by a responsible official upon submittal.

[45CSR§30-5.1.c.]

5.5.6. General reporting requirements for 40 C.F.R. Part 64 (CAM)

- a. On and after the date specified in 40 CFR §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 CFR 64, the permittee shall submit CAM monitoring reports with the semi-annual monitoring report under permit condition 3.5.6. Incorporation by reference within the semi-annual monitoring report is not acceptable.
- b. A report for monitoring under 40 CFR 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:
 1. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 2. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 3. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 CFR § 64.9(a); 45CSR§30-5.1.c.]

5.6. Compliance Plan

- 5.6.1. N/A

6.0 Emergency Generators [emission point ID(s): EG01, EG02]

6.1 Limitations and Standards

- 6.1.1. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the affected facility shall be less than 10 ton/yr of any single HAP and 25 ton/yr of any combination of HAPs. Compliance with this Section shall ensure that the affected facility is a minor HAP source.

[45CSR13 - Permit No. R13-2856 §4.1.1.]

- 6.1.2. For the two (2) emergency generators (Emission Unit IDs 005-01 and 005-02) with stationary spark ignition (SI) internal combustion engines (ICE) manufactured after January 1, 2009, each having maximum engine power greater than 19 KW (25 HP), the permittee shall comply with all applicable provisions of 40 CFR 60, Subpart JJJJ.

[45CSR13 - Permit No. R13-2856 §4.1.2., 45CSR16, 40 CFR§60.4230(a)(3)(iv)]

- 6.1.3. For the two (2) emergency generators (Emission Unit ID's 005-01 and 005-02) with maximum engine power greater than or equal to 100 HP, the permittee must comply with the emission standards in 40 CFR 60, Subpart JJJJ, Table 1.

Table 1 to Subpart JJJJ of Part 60: NO _x , CO, and VOC Emission Standards for Stationary Emergency Engines > 25 HP.					
Engine Type and Fuel	Maximum Engine Power	Manufacturer Date	Emission Standards (g/HP-hr)		
			NO _x	CO	VOC*
Emergency	HP ≥130	1/1/2009	2.0	4.0	1.0
* For purposes of this subpart [i.e. 40 CFR 60 Subpart JJJJ], when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.					

[45CSR13 - Permit No. R13-2856 §4.1.3., 45CSR16, 40 CFR§60.4231(e)]

- 6.1.4. The permittee must operate and maintain the two (2) stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

[45CSR13 - Permit No. R13-2856 §4.1.4., 45CSR16, 40 CFR§60.4234]

- 6.1.5. For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), the permittee may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.

[45CSR13 - Permit No. R13-2856 §4.1.5., 45CSR16, 40 CFR§60.4236(c)]

- 6.1.6. For a stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP), the permittee must comply with the emission standards specified in §60.4233(e) by demonstrating compliance according to one of the methods specified below:

- a. Purchasing an engine certified according to procedures specified in this subpart (40CFR60 Subpart JJJJ), for the same model year and demonstrating compliance according to one of the two methods specified below:

1. If you operate and maintain the certified stationary SI ICE and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator.

[40 CFR §60.4243(a)(1)]

2. If you do not operate and maintain the certified stationary SI ICE and control device according to the manufacture's emission-related written instructions, your engine will be considered a non-certified engine, and you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup to demonstrate compliance.

[40 CFR §60.4243(a)(2)(ii)]

[40 CFR §60.4243(b)(1)]

- b. Purchasing a non-certified engine and demonstrating compliance with the emission standards according to the requirements specified in §60.4244, as applicable, and by keeping a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

[40 CFR §60.4243(b)(2)(ii)]

[45CSR13 - Permit No. R13-2856 §4.1.6., 45CSR16, 40 CFR §§60.4243(b)(1) & (b)(2)]

- 6.1.7. Emissions from the two (2) emergency generators (Emission Point ID's EG01 & EG02) shall not exceed the hourly and annual limitations given below in permit Table 2:

Permit Table 2: Emissions from Dominion's Two (2) Emergency, NG-fired Engines.				
Pollutant		Maximum Emissions (Uncontrolled)		
		Hourly (lb/hr)		Annual ⁽⁴⁾ (ton/yr)
		One Engine Operation	Two Engine Operation ⁽³⁾	
Criteria Pollutants	Nitrogen Oxides (NO _x)	0.03 ⁽¹⁾	0.06	0.02
	Carbon Monoxide (CO)	0.39 ⁽¹⁾	0.78	0.20
	Volatile Organic Compounds (VOC)	0.19 ⁽¹⁾	0.38	0.10
HAP	Formaldehyde	0.03 ⁽²⁾	0.06	0.02
(1) Estimated using Manufacturer's Information. (2) Estimated using AP-42 factors. (3) Two Engine Operation (lb/hr) = One Engine Operation (lb/hr) x 2 (4) Based on operating each generator 500 hr/yr.				

[45CSR13 - Permit No. R13-2856 §4.1.7.]

- 6.1.8. Each of the two (2) emergency generator engines (Emission Unit ID's 005-01 and 005-02) shall not be operated more than 500 hr/yr.
[45CSR13 - Permit No. R13-2856 §4.1.8.]

6.2. Monitoring Requirements

- 6.2.1. [Reserved]

6.3. Testing Requirements

- 6.3.1. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (g) of this section.
- Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart. [40 CFR§60.4244(a)]
 - You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine. [40 CFR§60.4244(b)]
 - You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour. [40 CFR§60.4244(c)]
 - To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 1})$$

Where:

- ER = Emission rate of NO_x in g/HP-hr.
C_d = Measured NO_x concentration in parts per million by volume (ppmv).
1.912 x 10⁻³ = Conversion constant for ppm NO_x to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.
T = Time of test run, in hours.
HP - hr = Break work of the engine, horsepower-hour (HP-hr).

- To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 2})$$

Where:

- ER = Emission rate of CO in g/HP-hr.
C_d = Measured CO concentration in parts per million by volume (ppmv).
1.164 x 10⁻³ = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.
T = Time of test run, in hours.
HP - hr = Break work of the engine, horsepower-hour (HP-hr).

- f. For purposes of this subpart, when calculating emissions of VOC, emission of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 3})$$

Where:

- ER = Emission rate of VOC in g/HP-hr.
C_d = Measured VOC concentration in parts per million by volume (ppmv).
1.833 x 10⁻³ = Conversion constant for ppm VOC to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.
T = Time of test run, in hours.
HP - hr = Break work of the engine, horsepower-hour (HP-hr).

- g. If the owner/operator chooses to measure VOC emissions using either Method 18 or 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \quad (\text{Eq. 4})$$

Where:

- RF_i = Response factor of compound i when measured with EPA Method 25A.
C_{Mi} = Measured concentration of compound i in ppmv as carbon.
C_{Ai} = True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas} \quad (\text{Eq. 5})$$

Where:

- C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Peq} = 0.6098 \times C_{icorr} \quad (\text{Eq. 6})$$

Where:

C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM.

[45CSR13 - Permit No. R13-2856 §4.3.1., 45CSR16, 40 CFR §§60.4244(a)-(g)]

6.4. Recordkeeping Requirements

- 6.4.1. Minor Source of Hazardous Air Pollutants (HAP). The registrant shall maintain records of annual HAP emissions using AP-42 emission factors, GRI-GLY Calc model outputs, manufacturer guaranteed values, sample and/or test data, or other methods approved by DAQ demonstrating that facility-wide emissions are less than those specified in Section 6.1.1.

[45CSR13 - Permit No. R13-2856 §4.4.4.]

- 6.4.2. For the two (2) emergency generators (Emission Unit IDs 005-01 and 005-02) with stationary SI ICE, the permittee must keep records of:

- a. All notifications submitted to comply with 40 CFR 60, Subpart JJJJ and all documentation supporting any notification.
- b. Maintenance conducted on the engine.
- c. If the stationary SI ICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90 and 1048 as applicable.
- d. If the stationary SI ICE is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

[45CSR13 - Permit No. R13-2856 §4.4.5., 45CSR16, 40 CFR §60.4245(a)]

- 6.4.3. To demonstrate compliance with Sections 6.1.7 and 6.1.8, the permittee of stationary SI ICE shall keep a log detailing the date, time, number of hours operated and twelve-month rolling total (of hours of operation) for each of the emergency generator engines.

[45CSR13 - Permit No. R13-2856 §4.4.6.]

- 6.4.4. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit (i.e., R13-2856) recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may

maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

[45CSR13 - Permit No. R13-2856 §3.4.1.]

6.5. Reporting Requirements

6.5.1. The permittee of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed.

[45CSR13 - Permit No. R13-2856 §4.4.7., 45CSR16, 40 CFR §60.4245(d)]

6.6. Compliance Plan

6.6.1. N/A

7.0 Reciprocating Internal Combustion Engines [emission point ID(s): *EN01, EN02, and EN03*]

GACT Work Practice Requirements under 40 C.F.R. 63, Subpart ZZZZ

7.1. Limitations and Standards

7.1.1. The permittee must comply with the applicable operating limitations in this section no later than October 19, 2013.

[40 C.F.R. § 63.6595(a)]

7.1.2. As stated in 40 C.F.R. §63.6603 the permittee must comply with the following requirements from Table 2d for existing stationary RICE located at area sources of HAP emissions:

For each . . .	The permittee must meet the following requirements, except during periods of startup . . .
Non-emergency, non-black start 2SLB stationary RICE	Change oil and filter every 4,320 hours of operation or annually, whichever comes first; ¹
	Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; and
	Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.

¹Sources have the option to utilize an oil analysis program as described in 40 C.F.R. §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

[40 C.F.R. §63.6603(a), and Table 2d]

7.1.3. The permittee shall comply with the following requirements:

- a. The permittee must be in compliance with the operating limitations in this subpart that apply to the permittee at all times.
- b. At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if required levels have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 C.F.R. § 63.6605]

7.1.4. The permittee shall demonstrate continuous compliance by doing the following:

- a. The permittee must demonstrate continuous compliance with each emission limitation and operating limitation in Table 2d to 40 C.F.R. 63, Subpart ZZZZ that apply to the permittee according to methods specified in Table 6 to 40 C.F.R. 63, Subpart ZZZZ.

Table 6 states that for work or management practices the permittee shall operate and maintain the stationary RICE according to the manufacturer's emission related operation and maintenance instructions; or develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

- b. The permittee must report each instance in which you did not meet each emission limitation or operating limitation in Table 2d to 40 C.F.R. 63, Subpart ZZZZ that apply. These instances are deviations from the emission and operating limitations. These deviations must be reported according to the requirements in 40 C.F.R. §63.6650.
- c. The permittee must also report each instance in which the applicable requirements in Table 8 to 40 C.F.R. 63, Subpart ZZZZ were not met.

[40 C.F.R. §§ 63.6640(a), (b), and (e)]

- 7.1.5. The permittee shall comply with all General Provisions which apply according to Table 8 to 40 C.F.R., Part 63, Subpart ZZZZ.

[40 C.F.R. §63.6665]

7.2. Monitoring Requirements

- 7.2.1. This facility is subject to the following requirements:

- a. The permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

[40 C.F.R. §63.6625(e)(5)]

- b. If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

[40 C.F.R. §63.6625(h)]

- c. If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine

owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[40 C.F.R. §63.6625(j)]

7.3. Testing Requirements

7.3.1. Reserved

7.4. Recordkeeping Requirements

7.4.1. If the permittee must comply with the emission and operating limitations, the permittee must keep the following records:

- a. A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR §63.10(b)(2)(xiv).
- b. Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.
- c. Records of performance tests and performance evaluations as required in 40 CFR §63.10(b)(2)(viii).
- d. Records of all required maintenance performed on the air pollution control and monitoring equipment.
- e. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[40 CFR §63.6655(a)]

7.4.2. The permittee must keep records of the maintenance conducted on each stationary RICE in order to demonstrate that the permittee operated and maintained each stationary RICE and after-treatment control device (if any) according to the permittee's own maintenance plan.

[40 CFR §63.6655(e)]

7.4.3. Records of the monitoring required by Table 6 of subpart ZZZZ, item #9 shall be kept. These records also correlate with the monitoring conditions of 7.2.1.a. and c.

[40 CFR §63.6655(d)]

7.5. Reporting Requirements

7.5.1. Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual

monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

[40 CFR §63.6650(f)]

For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of 40 C.F.R. §63.6650 and the information in paragraphs (1) and (2) of this section.

- (1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
- (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

[40 CFR §63.6650(d)]

7.6. Compliance Plan

7.6.1. N/A